

CLAIMS

1. A modular eyewear system including magnetic mounting means for releasable magnetic mounting of one or more eyewear elements.
2. A modular eyewear system according to claim 1 further including mechanical mounting means for releasable mechanical mounting of eyewear elements in addition to the magnetic mounting of eyewear elements.
3. A modular eyewear system according to claim 2 wherein the mechanical mounting means allows the location of an eyewear element to be adjusted to a plurality of positions relative to one or more other eyewear elements.
4. A modular eyewear system according to claim 2 or claim 3 wherein the mechanical mounting means is a locating pin and recess.
5. A modular eyewear system according to any preceding claim wherein the one or more eyewear elements includes any one or more of frames, lenses, protective shields, optical instruments and illumination devices.
6. A modular eyewear system according to claim 1 comprising:
 - a frame member for wearing on a wearer's head;
 - a lens holder permanently attached or integrally formed with the frame member, the lens holder having magnetic mounting means and locating pins disposed thereon; and
 - an eyewear element having complementary magnetic mounting means provided thereon for releasable magnetic mounting of the eyewear element to the frame member whereby a protective shield having apertures therein may be interposed between the eyewear element and the frame member
7. A modular eyewear system according to claim 1 comprising:
 - a frame member for wearing on a wearer's head, the frame member having magnetic mounting means; and
 - a loupe or a similar magnification system, the loupe or magnification system having complementary magnetic mounting means, whereby the loupe or magnification system is releasably mountable to the frame member.
8. A modular eyewear system according to claim 7 wherein the loupe or magnification system comprises:

a first elongate mounting element;

a pair of magnifying lenses respectively attached at opposite ends of the first mounting element;

a second mounting element extending from the first mounting element between the magnifying lenses; and

a connector element attachable to the second mounting element, wherein complementary magnetic mounting means are provided on the connector element.

9. A modular eyewear system according to claim 8 wherein each magnifying lens is movable along the first mounting element.

10. A modular eyewear system according to claim 8 or claim 9 wherein the first mounting element is rotatable about its longitudinal axis to allow simultaneous movement of both magnifying lenses.

11. A modular eyewear system according to any one of claims 8 to 10 wherein the second mounting element is movable in a substantially vertical direction to allow vertical adjustment of the loupe's position relative to the frame member.

12. A modular eyewear system according to any one of claims 8 to 11 wherein the connector element comprises a first part and a second part rotatably attached to the first part to define an axis of rotation substantially parallel to the first mounting element, the loupe being movable by rotation of the second part about the axis of rotation.

13. A modular eyewear system according to claim 12 wherein the second part is rotatably movable in such a way that the loupe can be displaced from the wearer's field of view.

14. A modular eyewear system according to claim 12 or claim 13 wherein the loupe further includes an elongated member extending from the loupe, manual operation thereof allowing rotation of the second part about the said axis of rotation.

15. A modular eyewear system according to any one of claims 7 to 14 further including light delivery means for illuminating the subject being viewed through the magnifying lenses.

16. A modular eyewear system according to claim 15 wherein the light delivery means is attachable to the loupe so that the illumination direction is in the plane of the axes of the magnifying lenses.
- 5 17. A modular eyewear system according to claim 15 or claim 16 wherein the illumination is provided by optical fibre means.
18. A modular eyewear system according to claim 17 including guiding means provided on or attachable to the frame member for retaining the optical fibre means.
- 10 19. A modular eyewear system according to any preceding claim, including a nose support which is releasably mountable to an eyewear element by way of the magnetic mounting means.
20. A modular eyewear system according to claim 19 wherein the nose support is mountable to the eyewear element in a plurality of positions, in order to adjust the vertical position of the eyewear element on the wearer's head.
- 15 21. A modular eyewear system according to any preceding claim including a pair of arms for retaining eyewear elements in a substantially fixed position relative to the wearer's head, the arms being biased towards one another and curved to wrap around the wearer's head to exert pressure on the rear of the head, thereby urging the eyewear elements toward the wearer's face.
- 20 22. A modular eyewear system according to any preceding claim wherein one or more of the eyewear elements include air circulation means for increasing air circulation to the rear of the eyewear elements to prevent fogging.
23. A modular eyewear system according to claim 22 wherein the air circulation means comprises one or more apertures or slots in the eyewear elements or other
25 elements.
24. A modular eyewear system according to any preceding claim wherein the magnetic mounting means comprises a magnetic projection and a cooperating magnetic recess.
25. A modular eyewear system substantially as described herein with reference to the
30 accompanying drawings.
26. Protective headwear including the modular eyewear system according to any one of claims 1 to 25.